

TECHNICAL MANUAL

RECEIVER-TRANSMITTER BC-1335

CHANGES
No. 1 }

DEPARTMENT OF THE ARMY
Washington 25, D. C., 26 April 1948

Receiver-Transmitter BC-1335, serial numbers 5000 through 5499 inclusive on Order No. 2217-Phila-48, is substantially the same as Receiver-Transmitter BC-1335 previously procured and described in TM 11-879. To make TM 11-879 applicable to Receiver-Transmitter BC-1335, serial numbers 5000 through 5499 inclusive on Order No. 2217-Phila-48, TM 11-879, 23 April 1945, is changed as follows:

The "warning notice" on the cover and title page is deleted.

Figure 7 is rescinded.

Change figure 17 as follows:

Change the value of R21 in the diagram and on the chart from 4,700 ohms to 470,000 ohms.

Change the value of C26 in the diagram and on the chart from 8 mmf to 10 mmf.

Change the value of C36 and C37 in the diagram and on the chart from 20 mmf to 15 mmf.

Show C50 inside the shielding of T5.

Change figures 28 and 37 as follows:

Change the value of R9 in the diagrams and on the charts from 27,000 ohms to 22,000 ohms.

Section XVII is rescinded.

Change figure 61 as follows:

Change the value of C26 from 8 mmf to 10 mmf.

Change the value of C36 and C37 from 20 mmf to 15 mmf.

Change the value of C24 from 40 mmf to 40 mf.

Change the value of R9 from 27M to 22M.

Change the value of R44 from 240M to 220M.

Change the value of R62 from 220M to 220 ohms.

Show C50 inside the shielding of T5.

*These changes supersede so much of Addenda Sheet, 10 May 1945, as pertains to TM 11-879.

5. Table of Components

Component						Quantity
*	*	*	*	*	*	*
Tube JAN-OB3/VR-90-----						2
Tube JAN-1L4-----						9
Tube JAN-1R5-----						3
Tibe JAN-3A5-----						6
Tube JAN-3Q4-----						3
Tube JAN-6AF6G-----						2
*	*	*	*	*	*	*
*	*	*	*	*	*	*

6. Shipping Weights and Dimensions of Packed Sets (Superseded)

Receiver-Transmitter BC-1335 is packed as a unit in a corrugated paper carton 16¾ inches wide by 13¾ inches deep by 11⅛ inches high (fig. 8) with a total weight of approximately 38 pounds. The unit package is a double carton with a vaporproof barrier, or lining, around rhe inside carton. For export, the set is packed in a wooden crate holding three separate cartons which contain the following additional components of Radio Set SCR-619:

Quantity	Description
1	Set of 8 tubes:
2	JAN-1L4
1	JAN-1R5
1	JAN-3A5
1	JAN-3Q4
1	JAN-6AF6G
1	JAN-OB3/VR90
1	JAN-1A3
9	Batteries BB-54
3	Boxes CH-291

For further details on packaging of Receiver-Transmitter BC-1335 with tubes and batteries, and in a wooden crate with major compo- nents, refer to TM 11-619.

7. Description of Components

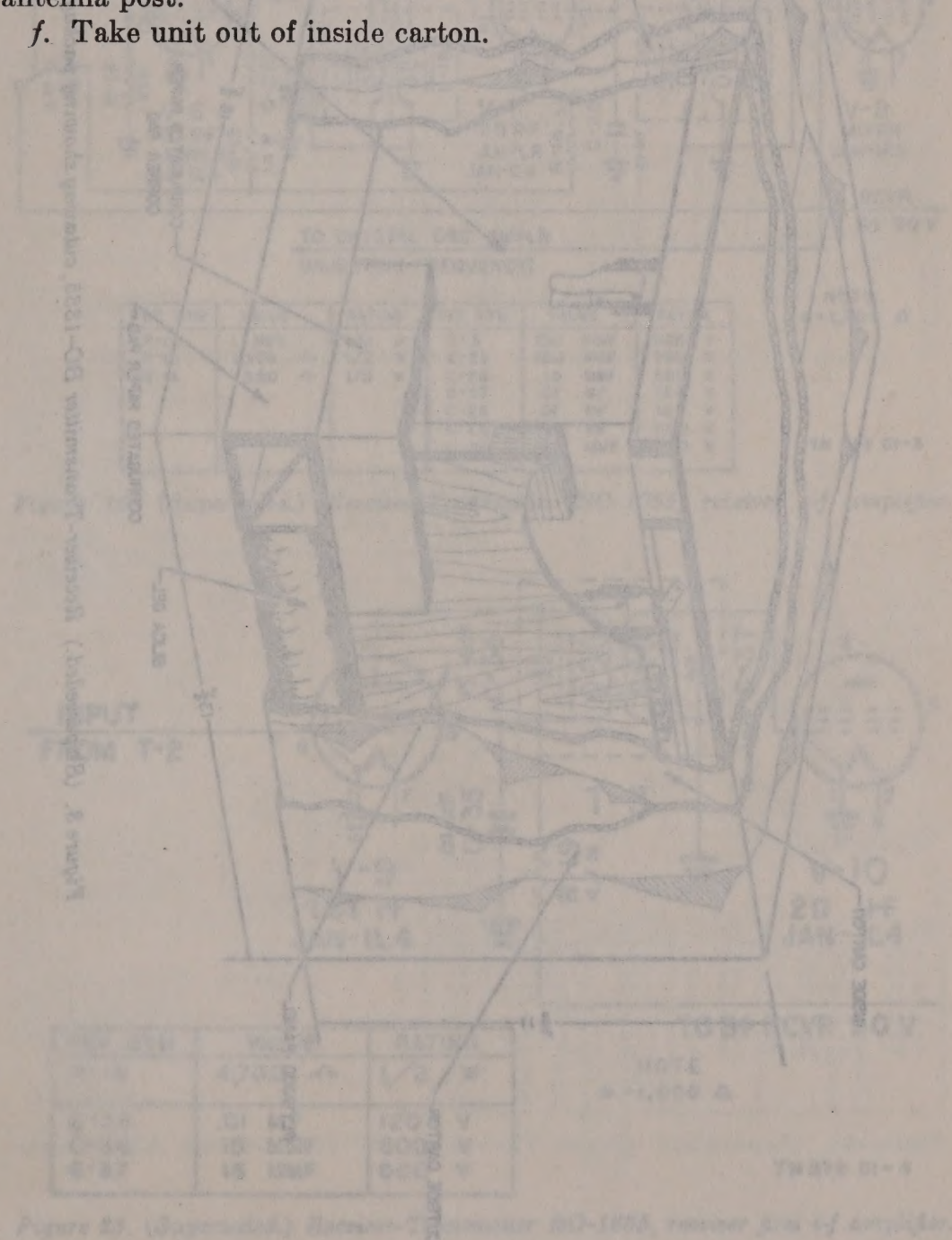
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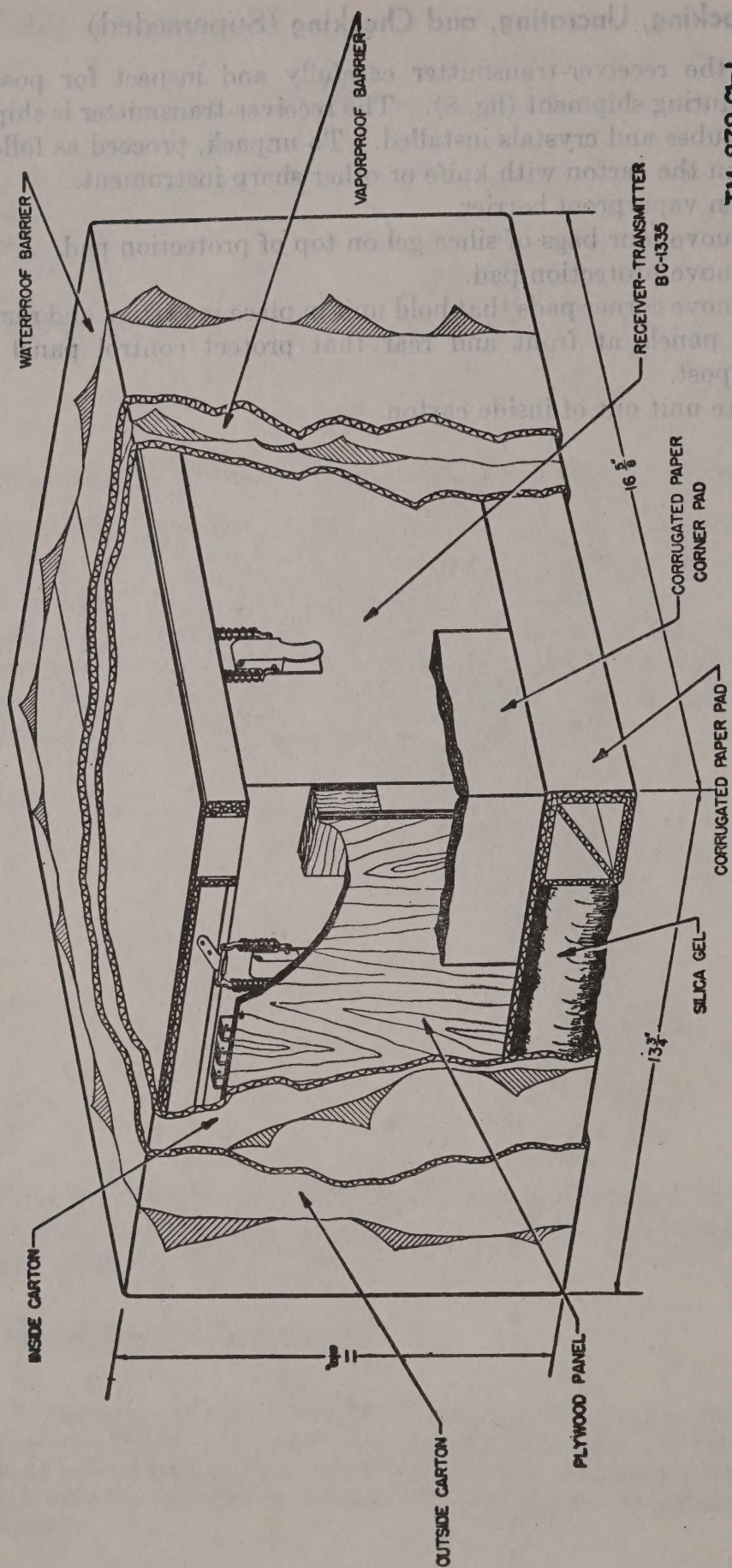
Note (Added). Crystal Holder FT-243 with crystal is used in both Receiver-Transmitter BC-1335 and Radio Receiver and Transmitter BC-659-(). The channel frequencies and Signal Corps stock numbers are identical; therefore crys- tals marked for BC-1335 or BC-659 may be used interchangeably in either equipment.

8. Unpacking, Uncrating, and Checking (Superseded)

Unpack the receiver-transmitter carefully and inspect for possible damage during shipment (fig. 8). The receiver-transmitter is shipped with all tubes and crystals installed. To unpack, proceed as follows:

- a. Open the carton with knife or other sharp instrument.
- b. Open vaporproof barrier.
- c. Remove four bags of silica gel on top of protection pad.
- d. Remove protection pad.
- e. Remove corner pads that hold unit in place in carton, and remove plywood panels at front and rear that protect control panel and antenna post.
- f. Take unit out of inside carton.





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Figure 8. (Superseded.) Receiver-Transmitter BC-1335, cutaway showing packaging.

50. Soldering Tip (Superseded)

Refer to paragraph 93*b* for instructions on the construction of a special soldering iron tip.

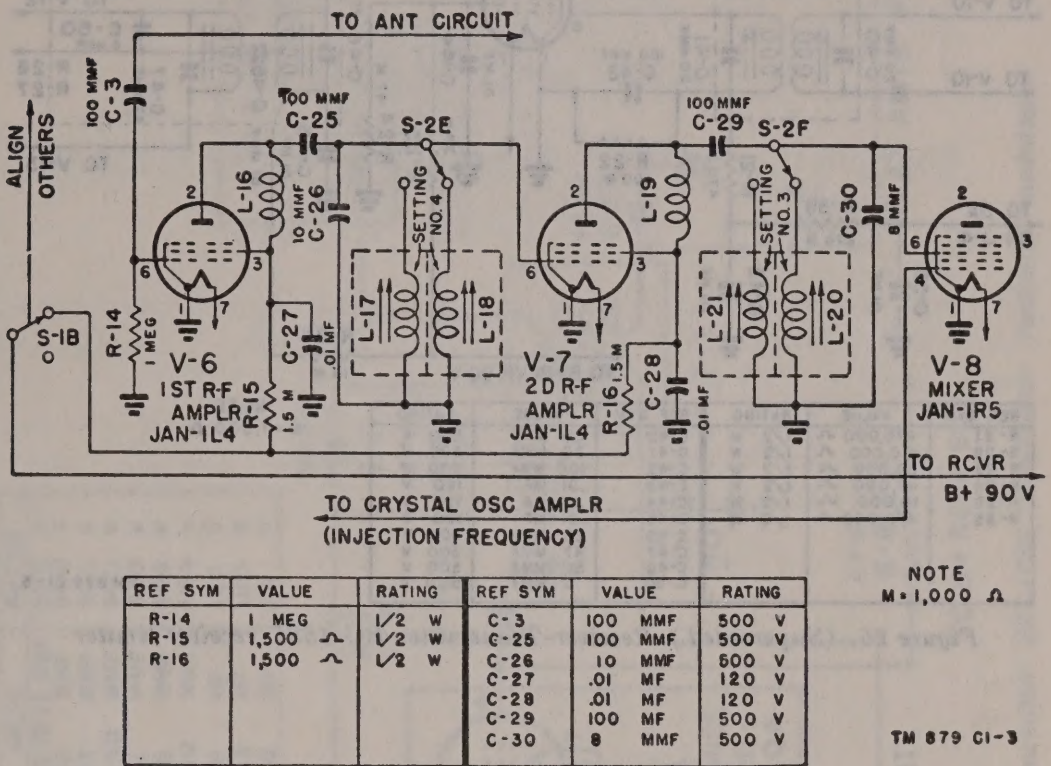


Figure 19. (Superseded.) Receiver-Transmitter BC-1335, receiver r-f amplifier.

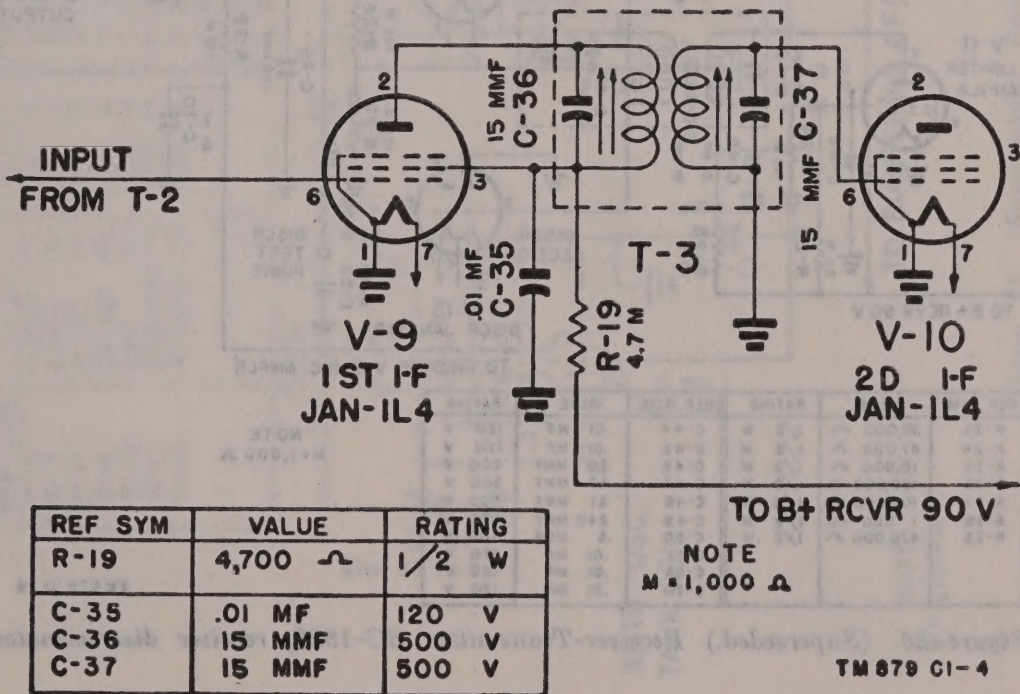


Figure 23. (Superseded.) Receiver-Transmitter BC-1335, receiver first i-f amplifier.

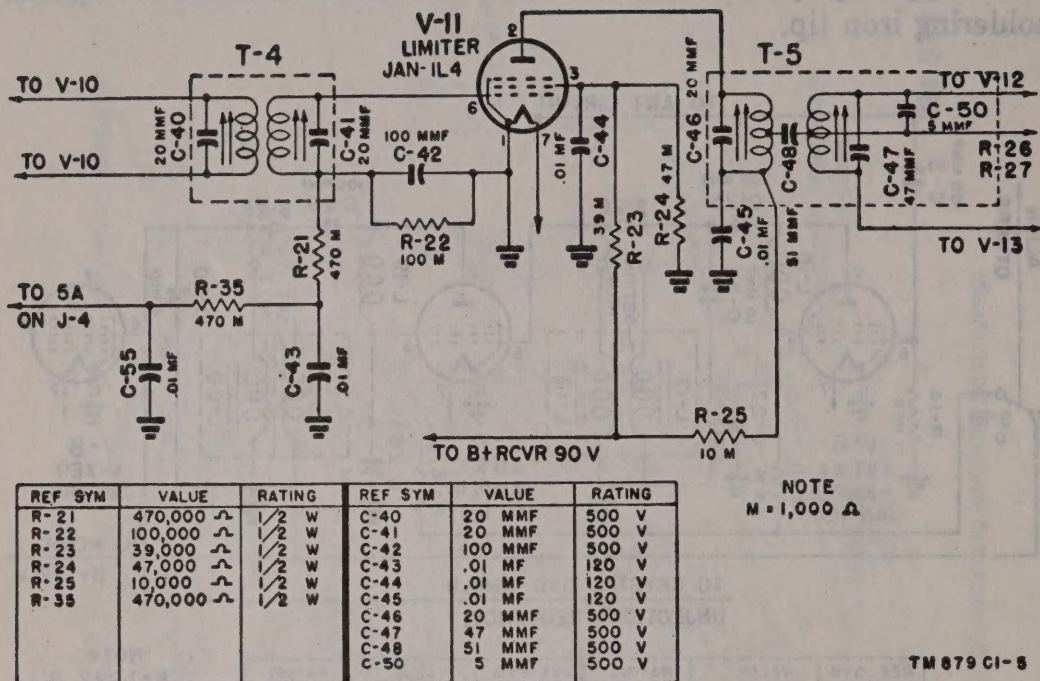


Figure 25. (Superseded.) Receiver-Transmitter BC-1335, receiver limiter

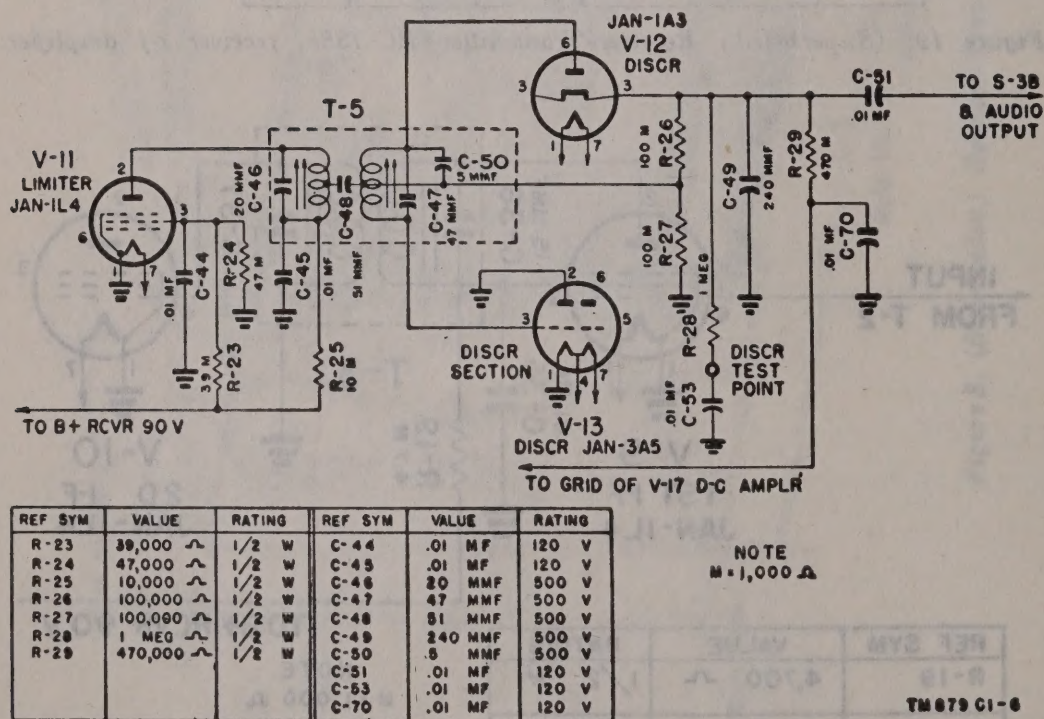
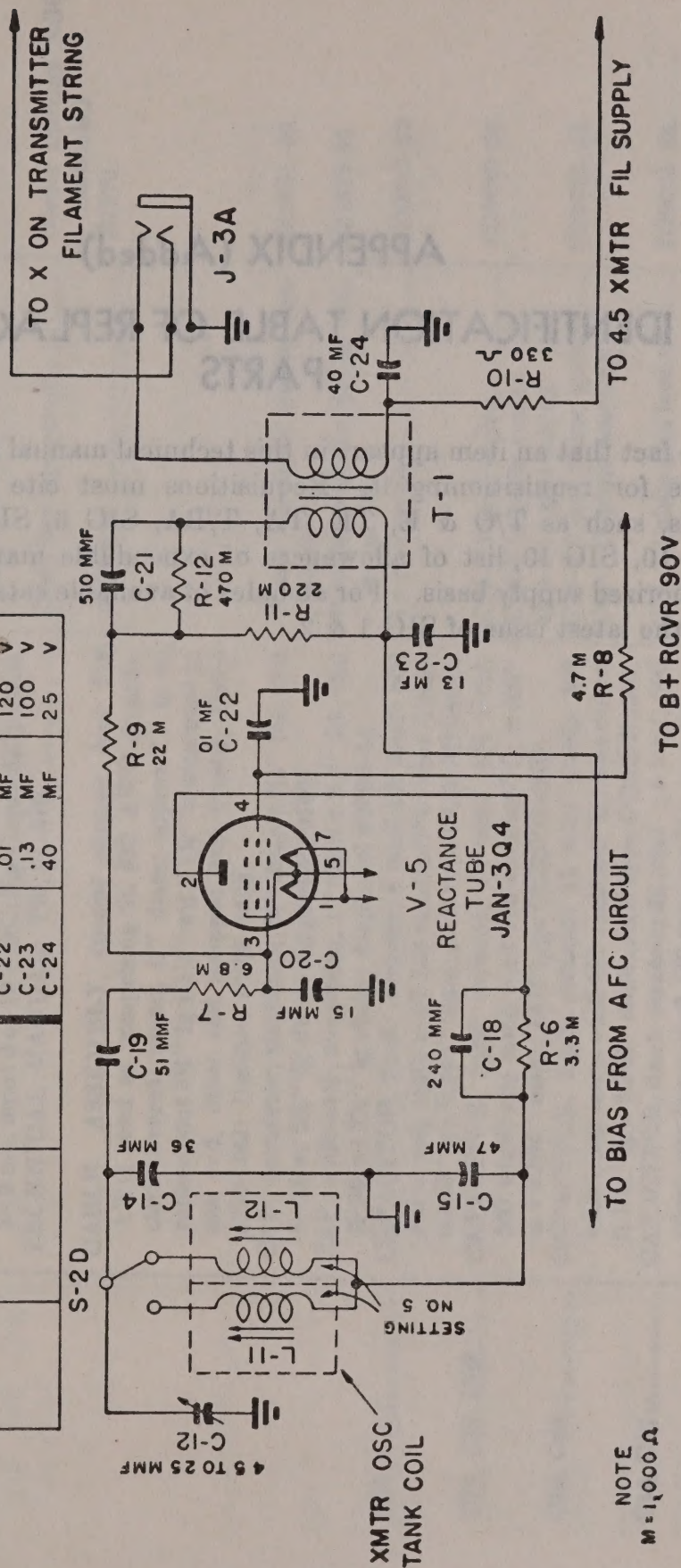


Figure 26. (Superseded.) Receiver-Transmitter BC-1335, receiver discriminator

REF SYM	VALUE	RATING	REF SYM	VALUE	RATING
R-6	3,300	1/2 W	C-12	45 TO 25 MMF	500 V
R-7	6,800	1/2 W	C-14	36 MMF	500 V
R-8	4,700	1/2 W	C-15	47 MMF	500 V
R-9	22,000	1/2 W	C-18	240 MMF	500 V
R-10	330	1/2 W	C-19	51 MMF	500 V
R-11	220,000	1/2 W	C-20	15 MMF	500 V
R-12	470,000	1/2 W	C-21	510 MMF	500 V
			C-22	.01 MF	120 V
			C-23	.13 MF	100 V
			C-24	40 MF	25 V



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Figure 31. (Superseded.) Receiver-Transmitter BC-1335, transmitter reactance modulator.

APPENDIX (Added)

IDENTIFICATION TABLE OF REPLACEABLE PARTS

The fact that an item appears in this technical manual is not sufficient basis for requisitioning it. Requisitions must cite an authorized basis, such as T/O & E, TE, TA, T/BA, SIG 6, SIG 7 & 8, SIG 7-8-10, SIG 10, list of allowances of expendable material, or other authorized supply basis. For an index of available catalog pamphlets, see the latest issue of SIG 1 & 2.

REL 248	AVTCE	BLING	REF	ACTVE	BLING
U-15	410000	U-15	C-15	40	52
U-10	330000	U-10	C-10	12	100
U-8	220000	U-8	C-8	21	135
U-6	110000	U-6	C-6	24	200
U-4	65000	U-4	C-4	41	250
U-2	23000	U-2	C-2	42	300
					350
					400
					450
					500
					550
					600
					650
					700
					750
					800
					850
					900
					950
					1000

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	RECEIVER-TRANSMITTER BC-1335: vehicular and transportable; FM; output 1.8 w; freq 27 to 38.9 mc; input 6 or 12 v DC; Sig C spec #271-3096. TECHNICAL MANUAL: TM 11-879-----	Transmits and receives voice radio signals.	2C5395-1335.
	CABLE ASSEMBLY, special purpose: four #18 AWG cond ea comprising 26 #32 AWG strands; cloth-covered; round, 1/4" diam; approx 7" lg w/ rubber boot 3 1/8" lg x 1 1/4" wd x 1 3/8" h cemented to one end, other end stripped and tinned; Delco #7254292; Rauland #VW-0603.	Describes equipment-----	(Order through AGO channels.)
	CAP: connector; aluminum; 3/4" diam x 5/16" thk, thd 5/8-24 w/ 2 1/4" lg chain; Amphenol #9760.	A-f cable-----	E7270.
	CAP: connector; aluminum; 1" diam x 5/16" thk, thd 7/8-20 w/ 2 1/4" lg chain; Amphenol #9760-14.	Weather seal for coaxial connector J2.	2Z3351-30.
C30-----	CAPACITOR, fixed: ceramic; 8 mmf \pm 1/2 mmf; 500 vdcw; neg temp coeff 150 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30PHO80D.	Weather seal for power connector P1.	2Z1612.26.
C26, C57, C63-----	CAPACITOR, fixed: ceramic; 10 mmf \pm 1/2 mmf; 500 vdcw; neg temp coeff 150 mmf/mf/°C; 0.460" lg x 0.240" diam; JAN type CC30PH100D.	V8 grid tuning-----	3D9008-22.
C20, C64-----	CAPACITOR, fixed: ceramic; 15 mmf \pm 5%; 500 vdcw; neg temp coeff 150 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30PH150J.	C26-V7 grid tuning----- C57-V14 plate tuning. C63-V14 grid tuning.	3D9010-88.
C16, C17-----	CAPACITOR, fixed: ceramic; 24 mmf \pm 5 mmf; 500 vdcw; neg temp coeff 150 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30PH240J.	C20-V5 grid phase shifting----- C64-V15 plate coupling. C16-V4 plate-grid feedback-----	3D9015-53. 3D9024-24.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C8, C9-----	CAPACITOR, fixed: ceramic; 27 mmf $\pm 2\%$; 500 vdcw; neg temp coeff 150 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30PH270G.	C8-V1 grid tuning----- C9-V2 grid tuning.	3D9027-14.
C14-----	CAPACITOR, fixed: ceramic; 36 mmf $\pm 5\%$; 500 vdcw; neg temp coeff 470 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30TH360J.	V4 plate tuning-----	3D9036-6.
C15-----	CAPACITOR, fixed: ceramic; 47 mmf $\pm 2\%$; 500 vdcw; neg temp coeff 80 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30LH470G.	V4 plate tuning-----	3D9047-18.
C19-----	CAPACITOR, fixed: ceramic; 51 mmf $\pm 2\%$; 500 vdcw; neg temp coeff 150 mmf/mf/°C; 0.460" lg x 0.240" diam; JAN type CC30PG510G.	V5 grid coupling and phase shifting.	3D9051-16.
C77 through C82----	CAPACITOR, fixed: ceramic; feed-thru type; 1000 vdcw; neg temp coeff 520 mmf/mf/°C; 1½" lg x 1½" diam; Centralab #617-001.	C77-Transmitter filament string r-f bypass. C78-Receiver filament string r-f bypass. C79-Receiver high-voltage r-f bypass. C80-Transmitter high-voltage r-f bypass. C81-Transmitter filament string r-f bypass. C82-Receiver filament string r-f bypass.	3D9055-4.J

C3, C25, C29, C42, C56.	CAPACITOR, fixed: ceramic; 100 mmf \pm 5%; 500 vdcw; neg temp coeff 330 mmf/mf/°C; max dimen 0.460" lg x 0.240" diam; JAN type CC30SL101J.	C3-Receiver antenna coupling. C25-V6 plate output coupling. C29-V7 plate output coupling. C42-V11 grid return bypass. C56-V14 plate output coupling.	3D9100-190.
C2, C10, C11, C13, C18, C49, C52, C54, C66.	CAPACITOR, fixed: ceramic; 240 mmf \pm 2%; 500 vdcw; neg temp coeff 470 mmf/mf/°C; max dimen 1.165" lg x 0.315" diam; JAN type CC35TK241G.	C2-V1, V2 plate supply r-f bypass. C10-V3 plate output coupling. C11-V4 plate (pin 6) output coupling. C13-V4 plate (pin 2) output coupling. C18-V5 plate, R6 bypass. C49-V12 cathode bypass. C52-TEST PROD r-f bypass. C54-J4 pin 6 r-f bypass. C66-V16 oscillator tuning.	3D9240-19.
C21, C85-----	CAPACITOR, fixed: mica; 510 mmf \pm 5%; 500 vdcw; max body dimen $5\frac{1}{4}$ " lg x $1\frac{1}{2}$ " wd x $7\frac{1}{2}$ " thk; JAN type CM20B511J.	C21-Microphone input, h-f audio pre-emphasis. C85-High-voltage r-f filter.	3K2051122.

Identification Table of Replacedble Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C22, C27, C28, C31, C32, C35, C39, C43 through C45, C51, C53, C55, C59, C60, C62, C65, C67 through C72, C86, C87, C92.	CAPACITOR, fixed: paper; 10,000 mmf \pm 10%; 120 vdcw; body dimen $5\frac{1}{4}$ " lg x $1\frac{5}{32}$ " wd x $\frac{7}{32}$ " thk; JAN type CN20E103K.	C22-V5 screen bypass----- C27-V6 screen bypass. C28-V7 screen bypass. C31-V8 screen bypass. C32-V8 plate return bypass. C35-V9 screen bypass. C39-V10 screen bypass. C43-J4 pin 5A decoupling. C44-V11 screen bypass. C45-V11 plate return bypass. C51-V12 a-f output coupling. C53-V12 DISCR TEST POINT decoupling. C55-J4 pin 5A decoupling. C59-V8 grid (pin 4) return bypass. C60-V14 screen bypass. C62-V14 grid return bypass. C65-V15 plate return bypass. C67-V16 grid (pin 6) coupling. C68-V16 grid (pin 4) coupling. C69-V16 screen bypass. C70-V17 grid filter. C71-V17 screen bypass.	3DA10-406.

C75-----	CAPACITOR, fixed: paper; 20,000 mmf \pm 10%; 1500 vdcw; HS metal case; oil filled; $1\frac{1}{16}$ " lg x 1" wd x $\frac{3}{4}$ " h; Delco #7253765; Rauland #CO-203G.	C72-T6 primary, h-f audio attenuator.	3DA20-146.
C83A, B, C-----	CAPACITOR, fixed: paper; three sect; 100,000-100,000-100,000 mmf \pm 20%; 600 vdcw; HS metal case; oil filled; body dimen $1\frac{1}{16}$ " lg x 1" wd x $\frac{3}{4}$ " h; JAN type CP54B5FF104M.	C86-P1 battery lead bypass. C87-P1 battery lead bypass. C92-Receiver filament string bypass.	3DA100-766.
C23, C38, C88 through C91, C93.	CAPACITOR, fixed: paper; 130,000 mmf + 30% - 10%; 100 vdcw; HS metal case; oil filled; body dimen $1\frac{1}{2}$ " lg x $\frac{5}{16}$ " diam; Rauland #CO-134A.	T7 secondary buffer----- C83A-High-voltage r-f filter. C83B-Transmitter filament string r-f filter. C83C-Receiver filament string r-f filter. C23-T1 secondary a-f bypass. C38-Receiver high-voltage line bypass. C88-V11 filament bypass. C89-V10 filament bypass. C90-V9 filament bypass. C91-V12 filament bypass. C93-Transmitter filament string bypass.	3DA13-15.
C76-----	CAPACITOR, fixed: paper; 500,000 mmf \pm 10%; 600 vdcw; HS metal case; oil filled; body dimen $1\frac{1}{16}$ " lg x 1" wd x $\frac{7}{8}$ " h; Delco #7253766; Rauland #CO-504Y.	T7 primary buffer-----	3DA500-97.3.
C84A, B-----	CAPACITOR, fixed: electrolytic; 2 sect; 20-20 mf; 400 vdcw; HS, plug-in type; body dimen $2\frac{1}{4}$ " lg x $1\frac{1}{2}$ " diam; JAN type CE52C200Q.	C84A-High-voltage hum filter. C84B-High-voltage hum filter.	3DB20-108.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
C24-----	CAPACITOR, fixed: paper; 40 mf; 25 vdcw; body dimen 1 ¹³ / ₁₆ " lg x 1" wd x 1 ¹³ / ₁₆ " h; HS metal case; Dubilier #AVL-10071.	Microphone circuit a-f bypass--	3DB40-54.
C73-----	CAPACITOR, fixed: electrolytic; 2000 mf; 15 vdcw; 3 ¹ / ₂ " lg x 1 ¹⁵ / ₂ " diam; Mallory #FP; Rauland #CE-208.	Filament circuit hum filter----	3DB2000-4.1.
C1, C58, C61-----	CAPACITOR, variable: ceramic; 2.5 to 13 mmf; 500 vdcw; zero temp coeff; 1 ¹ / ₁₆ " lg x 4 ¹ / ₄ " wd x 3 ³ / ₈ " h; Centralab #822BZ; Rauland #CV-130B.	C1—Antenna coupling----- C58—V14 plate tuning. C61—V14 grid tuning.	3D9013V-4.
C4-----	CAPACITOR, variable: air; 3.7-35.2 mmf; 0.016" air gap; SLC characteristic; lug term RH side; body 1 ³ / ₄ " lg x 1 ¹⁵ / ₁₆ " wd x 1 ¹ / ₂ " h; Amer Steel Pack #35-G, type H; Rauland #CV-350A.	V1, V2 plate tuning-----	3D9035VE2-1.
C5-----	CAPACITOR, variable: air; 3.7 mmf to 35.2 mmf; 0.016" air gap; SLC characteristic; lug term LH side; body 1 ³ / ₄ " lg x 1 ¹⁵ / ₁₆ " wd x 1 ¹ / ₂ " h; Amer Steel Pack #35-G, type H; Rauland #CV-350B.	V1, V2 plate tuning-----	3D9035VE2-2.
C6, C7-----	CAPACITOR, variable: ceramic; 4.5 to 25 mmf; 500 vdcw; zero temp coeff; 4 ¹ / ₄ " wd x 2 ¹ / ₂ " lg x 1 ¹ / ₂ " h; JAN type CV11A250.	C6-V1, V2 neutralizing----- C7-V1, V2 neutralizing.	3D9025V-82.
C12-----	CAPACITOR, variable: ceramic; 4.5 to 25 mmf; 500 vdcw; neg temp coeff; 500 mmf/mf°C; 4 ¹ / ₄ " wd x 2 ¹ / ₂ " lg x 1 ¹ / ₂ " thk; JAN type CV11C250.	V4 plate tuning-----	3D9025V-80.
BT1-----	CELL, bias: Sig C Bias Cell BA-45; 1 ¹ / ₄ v; cylindrical; 5 ⁵ / ₈ " diam x 1 ¹ / ₂ " h over-all; Rauland #JB-0006; spec #JAN-B-18A.	Bias cell for calibrating V18--	3A9045.

CRYSTAL UNIT, quartz: Army-Navy Crystal Unit CR-6/U ea unit consists of a quartz plate in Sig C Crystal Holder FT-243; over-all dimen $1\frac{13}{32}$ " h x $1\frac{3}{16}$ " wd x $1\frac{3}{32}$ " thk.	Controls frequency of receiver- transmitter.	
CRYSTAL UNIT, quartz: 5675 kc; chan 27.0 me---	----	2X179-5675.
CRYSTAL UNIT, quartz: 5700 kc; chan 27.1 me---	----	2X179-5700.
CRYSTAL UNIT, quartz: 5725 kc; chan 27.2 me---	----	2X179-5725.
CRYSTAL UNIT, quartz: 5750 kc; chan 27.3 me---	----	2X179-5750.
CRYSTAL UNIT, quartz: 5775 kc; chan 27.4 me---	----	2X179-5775.
CRYSTAL UNIT, quartz: 5800 kc; chan 27.5 me---	----	2X179-5800.
CRYSTAL UNIT, quartz: 5825 kc; chan 27.6 me---	----	2X179-5825.
CRYSTAL UNIT, quartz: 5850 kc; chan 27.7 me---	----	2X179-5850.
CRYSTAL UNIT, quartz: 5875 kc; chan 27.8 me---	----	2X179-5875.
CRYSTAL UNIT, quartz: 5900 kc; chan 27.9 me---	----	2X179-5900.
CRYSTAL UNIT, quartz: 5925 kc; chan 28.0 me---	----	2X179-5925.
CRYSTAL UNIT, quartz: 5950 kc; chan 28.1 me---	----	2X179-5950.
CRYSTAL UNIT, quartz: 5975 kc; chan 28.2 me---	----	2X179-5975.
CRYSTAL UNIT, quartz: 6000 kc; chan 28.3 me---	----	2X179-6000.
CRYSTAL UNIT, quartz: 6025 kc; chan 28.4 me---	----	2X179-6025.
CRYSTAL UNIT, quartz: 6050 kc; chan 28.5 me---	----	2X179-6050.
CRYSTAL UNIT, quartz: 6075 kc; chan 28.6 me---	----	2X179-6075.
CRYSTAL UNIT, quartz: 6100 kc; chan 28.7 me---	----	2X179-6100.
CRYSTAL UNIT, quartz: 6125 kc; chan 28.8 me---	----	2X179-6125.
CRYSTAL UNIT, quartz: 6150 kc; chan 28.9 me---	----	2X179-6150.
CRYSTAL UNIT, quartz: 6175 kc; chan 29.0 me---	----	2X179-6175.
CRYSTAL UNIT, quartz: 6200 kc; chan 29.1 me---	----	2X179-6200.
CRYSTAL UNIT, quartz: 6225 kc; chan 29.2 me---	----	2X179-6225.
CRYSTAL UNIT, quartz: 6250 kc; chan 29.3 me---	----	2X179-6250.
CRYSTAL UNIT, quartz: 6275 kc; chan 29.4 me---	----	2X179-6275.
CRYSTAL UNIT, quartz: 6300 kc; chan 29.5 me---	----	2X179-6300.
CRYSTAL UNIT, quartz: 6325 kc; chan 29.6 me---	----	2X179-6325.
CRYSTAL UNIT, quartz: 6350 kc; chan 29.7 me---	----	2X179-6350.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	CRYSTAL UNIT, quartz: 6375 kc; chan 29.8 mc---	-----	2X179-6375.
	CRYSTAL UNIT, quartz: 6400 kc; chan 29.9 mc---	-----	2X179-6400.
	CRYSTAL UNIT, quartz: 6425 kc; chan 30.0 mc---	-----	2X179-6425.
	CRYSTAL UNIT, quartz: 6450 kc; chan 30.1 mc---	-----	2X179-6450.
	CRYSTAL UNIT, quartz: 6475 kc; chan 30.2 mc---	-----	2X179-6475.
	CRYSTAL UNIT, quartz: 6500 kc; chan 30.3 mc---	-----	2X179-6500.
	CRYSTAL UNIT, quartz: 6525 kc; chan 30.4 mc---	-----	2X179-6525.
	CRYSTAL UNIT, quartz: 6550 kc; chan 30.5 mc---	-----	2X179-6550.
	CRYSTAL UNIT, quartz: 6575 kc; chan 30.6 mc---	-----	2X179-6575.
	CRYSTAL UNIT, quartz: 6600 kc; chan 30.7 mc---	-----	2X179-6600.
	CRYSTAL UNIT, quartz: 6625 kc; chan 30.8 mc---	-----	2X179-6625.
	CRYSTAL UNIT, quartz: 6650 kc; chan 30.9 mc---	-----	2X179-6650.
	CRYSTAL UNIT, quartz: 6675 kc; chan 31.0 mc---	-----	2X179-6675.
	CRYSTAL UNIT, quartz: 6700 kc; chan 31.1 mc---	-----	2X179-6700.
	CRYSTAL UNIT, quartz: 6725 kc; chan 31.2 mc---	-----	2X179-6725.
	CRYSTAL UNIT, quartz: 6750 kc; chan 31.3 mc---	-----	2X179-6750.
	CRYSTAL UNIT, quartz: 6775 kc; chan 31.4 mc---	-----	2X179-6775.
	CRYSTAL UNIT, quartz: 6800 kc; chan 31.5 mc---	-----	2X179-6800.
	CRYSTAL UNIT, quartz: 6825 kc; chan 31.6 mc---	-----	2X179-6825.
	CRYSTAL UNIT, quartz: 6850 kc; chan 31.7 mc---	-----	2X179-6850.
	CRYSTAL UNIT, quartz: 6875 kc; chan 31.8 mc---	-----	2X179-6875.
	CRYSTAL UNIT, quartz: 6900 kc; chan 31.9 mc---	-----	2X179-6900.
	CRYSTAL UNIT, quartz: 6925 kc; chan 32.0 mc---	-----	2X179-6925.
	CRYSTAL UNIT, quartz: 6950 kc; chan 32.1 mc---	-----	2X179-6950.
	CRYSTAL UNIT, quartz: 6975 kc; chan 32.2 mc---	-----	2X179-6975.
	CRYSTAL UNIT, quartz: 7000 kc; chan 32.3 mc---	-----	2X179-7000.
	CRYSTAL UNIT, quartz: 7025 kc; chan 32.4 mc---	-----	2X179-7025.

CRYSTAL UNIT, quartz: 7050 ke; chan 32.5 mc---	2X179-7050.
CRYSTAL UNIT, quartz: 7075 ke; chan 32.6 mc---	2X179-7075.
CRYSTAL UNIT, quartz: 7100 ke; chan 32.7 mc---	2X179-7100.
CRYSTAL UNIT, quartz: 7125 ke; chan 32.8 mc---	2X179-7125.
CRYSTAL UNIT, quartz: 7150 ke; chan 32.9 mc---	2X179-7150.
CRYSTAL UNIT, quartz: 7175 ke; chan 33.0 mc---	2X179-7175.
CRYSTAL UNIT, quartz: 7200 ke; chan 33.1 mc---	2X179-7200.
CRYSTAL UNIT, quartz: 7225 ke; chan 33.2 mc---	2X179-7225.
CRYSTAL UNIT, quartz: 7250 ke; chan 33.3 mc---	2X179-7250.
CRYSTAL UNIT, quartz: 7275 ke; chan 33.4 mc---	2X179-7275.
CRYSTAL UNIT, quartz: 7300 ke; chan 33.5 mc---	2X179-7300.
CRYSTAL UNIT, quartz: 7325 ke; chan 33.6 mc---	2X179-7325.
CRYSTAL UNIT, quartz: 7350 ke; chan 33.7 mc---	2X179-7350.
CRYSTAL UNIT, quartz: 7375 ke; chan 33.8 mc---	2X179-7375.
CRYSTAL UNIT, quartz: 7400 ke; chan 33.9 mc---	2X179-7400.
CRYSTAL UNIT, quartz: 7425 ke; chan 34.0 mc---	2X179-7425.
CRYSTAL UNIT, quartz: 7450 ke; chan 34.1 mc---	2X179-7450.
CRYSTAL UNIT, quartz: 7475 ke; chan 34.2 mc---	2X179-7475.
CRYSTAL UNIT, quartz: 7500 ke; chan 34.3 mc---	2X179-7500.
CRYSTAL UNIT, quartz: 7525 ke; chan 34.4 mc---	2X179-7525.
CRYSTAL UNIT, quartz: 7550 ke; chan 34.5 mc---	2X179-7550.
CRYSTAL UNIT, quartz: 7575 ke; chan 34.6 mc---	2X179-7575.
CRYSTAL UNIT, quartz: 7600 ke; chan 34.7 mc---	2X179-7600.
CRYSTAL UNIT, quartz: 7625 ke; chan 34.8 mc---	2X179-7625.
CRYSTAL UNIT, quartz: 7650 ke; chan 34.9 mc---	2X179-7650.
CRYSTAL UNIT, quartz: 7675 ke; chan 35.0 mc---	2X179-7675.
CRYSTAL UNIT, quartz: 7700 ke; chan 35.1 mc---	2X179-7700.
CRYSTAL UNIT, quartz: 7725 ke; chan 35.2 mc---	2X179-7725.
CRYSTAL UNIT, quartz: 7750 ke; chan 35.3 mc---	2X179-7750.
CRYSTAL UNIT, quartz: 7775 ke; chan 35.4 mc---	2X179-7775.
CRYSTAL UNIT, quartz: 7800 ke; chan 35.5 mc---	2X179-7800.
CRYSTAL UNIT, quartz: 7825 ke; chan 35.6 mc---	2X179-7825.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
	CRYSTAL UNIT, quartz: 7850 kc; chan 35.7 mc---	-----	2X179-7850.
	CRYSTAL UNIT, quartz: 7875 kc; chan 35.8 mc---	-----	2X179-7875.
	CRYSTAL UNIT, quartz: 7900 kc; chan 35.9 mc---	-----	2X179-7900.
	CRYSTAL UNIT, quartz: 7925 kc; chan 36.0 mc---	-----	2X179-7925.
	CRYSTAL UNIT, quartz: 7950 kc; chan 36.1 mc---	-----	2X179-7950.
	CRYSTAL UNIT, quartz: 7975 kc; chan 36.2 mc---	-----	2X179-7975.
	CRYSTAL UNIT, quartz: 8000 kc; chan 36.3 mc---	-----	2X179-8000.
	CRYSTAL UNIT, quartz: 8025 kc; chan 36.4 mc---	-----	2X179-8025.
	CRYSTAL UNIT, quartz: 8050 kc; chan 36.5 mc---	-----	2X179-8050.
	CRYSTAL UNIT, quartz: 8075 kc; chan 36.6 mc---	-----	2X179-8075.
	CRYSTAL UNIT, quartz: 8100 kc; chan 36.7 mc---	-----	2X179-8100.
	CRYSTAL UNIT, quartz: 8125 kc; chan 36.8 mc---	-----	2X179-8125.
	CRYSTAL UNIT, quartz: 8150 kc; chan 36.9 mc---	-----	2X179-8150.
	CRYSTAL UNIT, quartz: 8175 kc; chan 37.0 mc---	-----	2X179-8175.
	CRYSTAL UNIT, quartz: 8200 kc; chan 37.1 mc---	-----	2X179-8200.
	CRYSTAL UNIT, quartz: 8225 kc; chan 37.2 mc---	-----	2X179-8225.
	CRYSTAL UNIT, quartz: 8250 kc; chan 37.3 mc---	-----	2X179-8250.
	CRYSTAL UNIT, quartz: 8275 kc; chan 37.4 mc---	-----	2X179-8275.
	CRYSTAL UNIT, quartz: 8300 kc; chan 37.5 mc---	-----	2X179-8300.
	CRYSTAL UNIT, quartz: 8325 kc; chan 37.6 mc---	-----	2X179-8325.
	CRYSTAL UNIT, quartz: 8350 kc; chan 37.7 mc---	-----	2X179-8350.
	CRYSTAL UNIT, quartz: 8375 kc; chan 37.8 mc---	-----	2X179-8375.
	CRYSTAL UNIT, quartz: 8400 kc; chan 37.9 mc---	-----	2X179-8400.
	CRYSTAL UNIT, quartz: 8425 kc; chan 38.0 mc---	-----	2X179-8425.
	CRYSTAL UNIT, quartz: 8450 kc; chan 38.1 mc---	-----	2X179-8450.
	CRYSTAL UNIT, quartz: 8475 kc; chan 38.2 mc---	-----	2X179-8475.
	CRYSTAL UNIT, quartz: 8500 kc; chan 38.3 mc---	-----	2X179-8500.

L1-----	CRYSTAL UNIT, quartz: 8525 kc; chan 38.4 mc.----- CRYSTAL UNIT, quartz: 8550 kc; chan 38.5 mc.----- CRYSTAL UNIT, quartz: 8575 kc; chan 38.6 mc.----- CRYSTAL UNIT, quartz: 8600 kc; chan 38.7 mc.----- CRYSTAL UNIT, quartz: 8625 kc; chan 38.8 mc.----- CRYSTAL UNIT, quartz: 8650 kc; chan 38.9 mc.----- COIL, RF: antenna; single winding; single layer wound; unshielded; 9 turns #20 AWG copper wire; 1 1/4" lg x 1 3/8" diam over-all; Delco #7254225; Rauland #LV-0016.	2X179-8525. 2X179-8550. 2X179-8575. 2X179-8600. 2X179-8625. 2X179-8650. 3C1084Z3-20.
L28-----	COIL, RF: bias oscillator; single winding, 1 pie universal wound; shielded; rectangular steel can; 1 4/64" lg x 7/8" wd x 1 15/64" h; Delco #7254438; Rauland #LL-0041.	3C1084Z3-27.
L5, L8, L16, L19, L24, L27, L29.	COIL, RF: choke; single winding; 2 pie universal wound; unshielded; 70 turns #38SSE wire per pie; 7/16" diam x 3/4" lg; Delco #7253929; Rauland #LC-0176.	3C1084Z3-15.
L9, L10, L13-----	COIL, RF: choke; single winding; 2 pie universal wound; unshielded; 140 turns #38SSE wire per pie; distributed capacity 0.7 mmf; 5/8" diam x 3/4" lg; Delco #7253930; Rauland #LC-0177.	3C1084Z3-28.
L2, L4-----	COIL, RF: transformer; 2 windings; single layer wound; 5 turns #20 AWG tapped 7/8 turn and at 2 1/2 turns; 1/2 turn of #22 AWG ins wire; 1 3/8" lg x 1 1/4" diam over-all; Delco #7254224; Rauland #LQ-0115.	3C1084Z3-29.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
L6, L7-----	COIL ASSEMBLY, RF: doubler; single winding; single layer wound; shielded; rectangular aluminum can; $1\frac{1}{2}$ " wd x $\frac{3}{4}$ " thk x $3\frac{1}{16}$ " h; adj iron cores; 2 knob adjustments on top; Delco #7254079.	L6—V1, V2 grid tank----- L7—V1, V2 grid tank.	3C1084Z3-25.
L11, L12-----	COIL ASSEMBLY, RF: transmitter oscillator; single winding, single layer wound; shielded; rectangular aluminum can; $1\frac{1}{2}$ " wd x $\frac{3}{4}$ " thk x $3\frac{1}{16}$ " h; adj iron cores; 2 knob adjustments on top; Delco #7254080.	L11—V4 plate tank----- L12—V4 plate tank.	3C1084Z3-30.
P2-----	CONNECTOR, adapter: single contact; brass; $2\frac{1}{8}$ " lg x $1\frac{1}{8}$ " diam over-all; Delco #7253908; Rauland #UG-2330.	Antenna connector-----	2Z307-51.
J2-----	CONNECTOR, receptacle: Sig C Socket SO-239; single round female cont; straight; $1\frac{1}{16}$ " lg x $1\frac{1}{2}$ " wd x $1\frac{1}{2}$ " h; Sig C dwg #SC-D-5850.	Antenna connector-----	2Z8799-239.
P1-----	CONNECTOR, receptacle: 3 round male cont; straight; $2\frac{1}{2}$ " lg x $1\frac{1}{16}$ " sq flange; Amphenol #AN-3102-14S-7P.	Battery connector-----	2Z3023-5.
J4-----	CONNECTOR ASSEMBLY: female contact; six pin jacks on bakelite strip; $2\frac{1}{16}$ " lg x $\frac{1}{2}$ " wd x $1\frac{1}{2}$ " h over-all; Delco #7253616; Rauland #VT-0243.	Metering strip-----	2Z3067-22.
F1-----	FUSE FU-21: cartridge; 10 amp. 25 v; glass body; ferrule term; $1\frac{1}{4}$ " lg x $\frac{1}{4}$ " diam. FASTENER, latch: case; steel; 50 lb capacity; $2\frac{1}{16}$ " lg x $1\frac{1}{2}$ " wd x $\frac{1}{2}$ " thk w/2 tension springs; Corbin #15821.	Protects equipment from overloads. For mounting equipment-----	3Z1921A. 6Z3810-68.

FASTENER, latch: case; steel; 100 lb capacity; 2 $\frac{1}{16}$ " lg x 1 $\frac{7}{8}$ " wd x 1 $\frac{1}{16}$ " h w/2 tension springs; Corbin #15801.	For mounting equipment-----	6Z3810-49.
GASKET: antenna connector; black neoprene; 1" sq x $\frac{1}{16}$ " thk w/5 holes; Delco #7253520; Rauland #QR-0224.	For antenna connector-----	2Z4866.245.
GASKET: antenna connector; black neoprene; 1 $\frac{3}{8}$ " OD x $\frac{5}{16}$ " ID x 0.050" thk w/3 holes; Delco #725527; Rauland #QR-0220.	For antenna connector-----	2Z4866.246.
GASKET: antenna connector; flange; black neoprene; 3 $\frac{2}{32}$ " OD x 2 $\frac{15}{16}$ " ID x $\frac{1}{16}$ " thk; Delco #7253442; Rauland #QR-0222.	For antenna connector-----	2Z4866.244.
GASKET: band switch; black neoprene; single hole; $\frac{5}{8}$ " OD x $\frac{1}{4}$ "; 0.062" thk; Delco #7253517; Rauland #QR-0216.	For band switch-----	2Z4866.243.
GASKET: case cover; black neoprene; 11" lg x 10" wd x $\frac{7}{32}$ " thk; Delco #7253639; Rauland #QR-0221.	For case cover-----	2Z4866.238.
GASKET: jack water seal; black neoprene; 2 $\frac{1}{32}$ " OD x 2 $\frac{3}{4}$ " ID x $\frac{1}{32}$ " thk; Delco #7253464; Rauland #QR-0218.	For jack water seal-----	2Z4866.240.
GASKET: power connector; black neoprene; 1 $\frac{1}{16}$ " sq x $\frac{1}{16}$ " thk w/5 holes; Delco #7253519; Rauland #QR-0214.	For power connector-----	2Z4866.242.
GASKET: volume control; black neoprene; $\frac{1}{2}$ " OD x $\frac{3}{8}$ " ID x 0.062" thk; Delco #7253534; Rauland #QR-0223.	For volume control-----	2Z4866.241.
HOLDER, fuse: extractor post; for single #3AG fuse; bakelite body; 2 $\frac{3}{8}$ " lg x $\frac{3}{4}$ " diam over-all; Littelfuse #342001; Rauland #SF-0168.	Holds F1-----	3Z3275-1.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
J3A, B, C-----	<p>INSULATOR, bushing: cylindrical; natural bakelite; $\frac{7}{8}$" lg over-all, base diam 0.593", top 0.515"; 0.437" ID; Delco #7253444.</p> <p>INSULATOR, disk: flat; phenolic; 4" diam x $\frac{1}{2}$" thk; Delco #7253633.</p> <p>JACK ASSEMBLY, telephone: 3 jacks on metal strip; 2 for 2 cond phone plug, 1 for 3 cond microphone plug; $2\frac{5}{64}$" lg x $\frac{3}{4}$" wd x 1.240" d over-all, strip $\frac{3}{64}$" thk; Delco #7254251.</p> <p>KNOB: bar; black aluminite; for double flat $\frac{1}{4}$" diam shaft; $\frac{1}{8}$" hole for mtg screw; 1" lg x $\frac{3}{8}$" wd x $1\frac{1}{2}$" h over-all; Delco #7253629; Rauland #QD-0212.</p> <p>LAMP, incandescent: 2 v, 0.060 amp; bulb T-3-$\frac{1}{4}$ clear; miniature bayonet base; $1\frac{1}{16}$" lg over-all; Mazda #49, Sylvania Prod #S-49.</p> <p>LAMPHOLDER: miniature bayonet; steel shell body; $1\frac{1}{4}$" lg x $1\frac{1}{8}$" wd x $\frac{7}{8}$" d over-all; Delco #7253665; Rauland #SL-0049.</p> <p>LEAD, test: single #18 AWG stranded cond; bakelite jacket; 20" lg w/metal tip one end; Delco #7253918.</p> <p>MOUNTING, fuseholder: zinc die casting; $2\frac{1}{16}$" lg x $1\frac{3}{8}$" wd x $1\frac{1}{16}$" thk over-all; Delco #7253754; Rauland #JS-0124.</p> <p>MOUNTING ASSEMBLY, battery: mts four $1\frac{1}{4}$ v bias cells; consists of four holders on bakelite strip; $3\frac{5}{16}$" lg x $1\frac{1}{16}$" wd x $1\frac{1}{16}$" over-all; Delco #7253506.</p>	<p>For current indicator lamp-----</p> <p>For antenna connector P2-----</p> <p>J3A-MIC jack----- J3B-PH jack. J3C-PH jack.</p> <p>For controls-----</p> <p>I1-R-f power amplifier current indicator.</p> <p>J1-Holds I1-----</p> <p>For test prod-----</p> <p>For fuse holder-----</p> <p>Mounts bias cells-----</p>	<p>3G1836-14.</p> <p>3G1838-64.8.</p> <p>4C4312-20.</p> <p>2Z5822-131.</p> <p>2Z5971.1.</p> <p>2Z5883-229.</p> <p>3E7270-1.</p> <p>2Z6740.7.</p> <p>2Z6740.6.</p>

	POST, binding: screw type; $1\frac{1}{2}$ " lg x $\frac{1}{2}$ " diam over-all; $1\frac{1}{2}$ " lg x 0.164" diam mtg stem w/#8-32 thd; Delco #7253873; Rauland #BG-1177.	Ground for pack antenna-----	3Z741-16.
	PULLER, tube: for 7 prong miniature type tubes; woven wire; approx 2" lg w/variable diameter; diameter decreases w/increase in length; Kellems #11-16.	For removing tubes-----	6R7443-7.
L30-----	REACTOR: filter choke; 0.008 hy min; 0.8 amp; 530 ohms DC resistance; 500 vdcw; HS metal case; $3\frac{5}{8}$ " lg x $1\frac{1}{2}$ " diam less term; Jeffsonelec #466-001-205; Rauland #LC-0174.	L30—Hum filter-----	3C1084Z3-26.
L35-----	REACTOR: filter choke; 3.7 hy, 145 ma; 125 ohms DC resistance; 170 v operating; HS metal case; $2\frac{3}{2}$ " max lg x $2\frac{3}{2}$ " wd x $2\frac{3}{4}$ " h less term; Jeffsonelec #466-001-206.	L35—High-voltage filter-----	3C323-145C.
R66-----	RESISTOR, fixed: wire-wound; 0.31 ohms $\pm 10\%$; 7 w; body dimen $1\frac{1}{16}$ " lg x $\frac{7}{16}$ " diam; Rauland #RW-0310AA8.	R66—Limits battery current during 12-volt operation.	3C5983-17.
R59, R60-----	RESISTOR, fixed: composition; 10 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF100J.	R59—Receiver filament voltage dropping. R60—Receiver filament voltage dropping.	3RC20BF100J.
R61-----	RESISTOR, fixed: composition; 18 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF180J.	R61—Receiver filament voltage dropping.	3RC20BF180J.
R2-----	RESISTOR, fixed: composition; 39 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF390J.	R2—Transmitter filament voltage balance.	3RC20BF390J.
R56-----	RESISTOR, fixed: wire-wound; 40 ohms $\pm 10\%$; 7 w; $1\frac{1}{16}$ " lg x $\frac{7}{16}$ " diam; Lectrohm 1T.	R56—Drops vibrator coil voltage during 12-volt operation.	3Z6004-50.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R55-----	RESISTOR, fixed: wire-wound; 40 ohms $\pm 5\%$; 1" lg x $1\frac{1}{3}$ " diam; JAN type #RW30F400.	R55—Drops filament voltage during 12-volt operation.	3RW15914.
R52, R53-----	RESISTOR, fixed: composition; 56 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF560J.	R52—Receiver filament string- R53—Receiver filament string-	3RC20BF560J.
R1, R67-----	RESISTOR, fixed: composition; 82 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF820J.	R1—Current indicator lamp shunt. R67—Transmitter filament voltage balance.	3RC20BF820J.
R68-----	RESISTOR, fixed: composition; 100 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF101K.	R68—Transmitter filament voltage balance.	3RC20BF101K.
R54-----	RESISTOR, fixed: composition; 100 ohms $\pm 10\%$; 1 w; max body dimen 0.750" lg x 0.280" diam; JAN type RC30BF101K.	R54—Receiver filament string-	3RC30BF101K.
R62-----	RESISTOR, fixed: composition; 220 ohms $\pm 5\%$; 1 w; max body dimen 0.750" lg x 0.280" diam; JAN type RC30BF221J.	R62—Receiver high-voltage dropping.	3RC30BF221J.
R10-----	RESISTOR, fixed: composition; 330 ohms $\pm 5\%$; 1 w; max body dimen 0.750" lg x 0.280" diam; JAN type RC30BF331J.	R10—Microphone current limiting.	3RC30BF331J.
R63-----	RESISTOR, fixed: wire-wound; 700 ohms $\pm 10\%$; 10 w; $1\frac{3}{4}$ " lg $\frac{5}{16}$ " diam; Hard-Hindle #13/4E; Rauland #RW-2701A8.	R63—V19 voltage regulator--	3Z5370.
R15, R16, R18-----	RESISTOR, fixed: composition; 1500 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF152K.	R15—V6 plate and screen decoupling. R16—V7 plate and screen decoupling.	3RC20BF152K.

R39-----	RESISTOR, fixed: composition; 2200 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.248" diam; JAN type RC20BF222K.	R18—V8 plate decoupling. R39—V15 plate decoupling-----	3RC20BF222K.
R6, R41-----	RESISTOR, fixed: composition; 3300 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.248" diam; JAN type RC20BF332K.	R6—V5 plate current limiting- R41—V6 plate and screen.	3RC20BF332K.
R3-----	RESISTOR, fixed: composition; 4700 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF472J.	R3—V1, V2 grid-----	3RC20BF472J.
R8, R19, R20-----	RESISTOR, fixed: composition; 4700 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF472K.	R8—V5 screen----- R19—V9 plate and screen R20—V10 plate and screen.	3RC20BF472K.
R57, R58-----	RESISTOR, fixed: composition; 5600 ohms $\pm 10\%$; 1 w; max body dimen 0.750" lg x 0.280" diam; JAN type RC30BF562K.	R57—T7 secondary buffer----- R58—T7 secondary buffer.	3RC30BF562K.
R7-----	RESISTOR, fixed: composition; 6800 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF682J.	R7—V5 grid phase shifting----	3RC20BF682J.
R47-----	RESISTOR, fixed: composition; 8200 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF822J.	R47—V17 screen voltage di- vider.	3RC20BF822J.
R5, R25, R38-----	RESISTOR, fixed: composition; 10,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF103J.	R5—V4 grid----- R25—V11 plate voltage drop- ping.	3RC20BF103J.
R9, R49-----	RESISTOR, fixed: composition; 22,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF223J.	R38—V4 screen. R9—V5 grid isolating----- R49—V17 screen voltage di- vider.	3RC20BF223J.
R17-----	RESISTOR, fixed: composition; 22,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF223K.	R17—V8 screen-----	3RC20BF223K.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R13, R33-----	RESISTOR, fixed: composition; 27,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF273K.	R13—J4 pin 2 isolating.----- R33—J4 pin 1 isolating.	3RC20BF273K.
R30-----	RESISTOR, fixed: composition; 33,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF333K.	R30—V12 output filter-----	3RC20BF333K.
R4-----	RESISTOR, fixed: composition; 39,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF393J.	R4—V3 grid-----	3RC20BF393J.
R23-----	RESISTOR, fixed: composition; 39,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF393K.	R23—V11 screen voltage divider.	3RC20BF393K.
R24-----	RESISTOR, fixed: composition; 47,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF473K.	R24—V11 screen voltage divider.	3RC20BF473K.
R32-----	RESISTOR, fixed: composition; 56,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF563K.	R32—V13 grid (pin 5)-----	3RC20BF563K.
R26, R27-----	RESISTOR, fixed: composition; 100,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF104J.	R26—V12 discriminator load.-- R27—V13 discriminator load.--	3RC20BF104J.
R22, R36-----	RESISTOR, fixed: composition; 100,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF104K.	R22—V11 grid----- R36—V8 grid (pin 4).	3RC20BF104K.
R45-----	RESISTOR, fixed: composition; 120,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" lg; JAN type RC20BF124J.	R45—V5 grid voltage divider--	3RC20BF124J.

R11-----	RESISTOR, fixed: composition; 220,000 $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF224J.	R11—V5 grid-----	3RC20BF224J.
R42, R44-----	RESISTOR, fixed: composition; 220,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF224K.	R42—V5 grid voltage divider. R44—V16 grid (pin 4).	3RC20BF224K.
R37, R40-----	RESISTOR, fixed: composition; 330,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF334K.	R37—V14 grid----- R40—V15 grid.	3RC20BF334K.
R12, R50-----	RESISTOR, fixed: composition; 470,000 ohms $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.269" diam; JAN type RC20BF474J.	R12—Microphone input h-f audio pre-emphasis. R50—V17 plate load.	3RC20BF474J.
R21, R29, R35, R51-----	RESISTOR, fixed: composition; 470,000 ohms $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.269" diam; JAN type RC20BF474K.	R21—J4 pin 5A decoupling--- R29—V17 grid a-f filter. R35—J4 pin 5A decoupling. R51—V13 audio section plate (pin 6) dropping resistor used during alignment.	3RC20BF474K.
R43, R46-----	RESISTOR, fixed: composition; 1 meg $\pm 5\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.249" diam; JAN type RC20BF105J.	R43—V5 grid voltage divider--- R46—V5 grid voltage divider.	3RC20BF105J.
R14, R28, R34-----	RESISTOR, fixed: composition; 1 meg $\pm 10\%$; $\frac{1}{2}$ w; max body dimen 0.468" lg x 0.269" diam; JAN type RC20BF105K.	R14—V6 grid----- R28—DISCR TEST POINT decoupling.	3RC20BF105K.
R48-----	RESISTOR, variable (potentiometer): carbon; 10,000 ohms $\pm 10\%$; linear taper; 1" diam x $1\frac{1}{2}$ " d; shaft $\frac{1}{4}$ " diam x $1\frac{1}{2}$ " lg w/screw-driver slot; Stackpole #LM; Rauland #RP-103J.	R34—J4 pin 6 decoupling. R48—V17 screen voltage ad- justment.	3Z7410-40.
T1-----	TRANSFORMER, AF; microphone; pri 8.5 ohms; sec'd 1300 ohms; HS shielded case; $1\frac{3}{4}$ " lg x 1" diam; Jeffsonelec #467-001-218; Rauland #LA-0045.	T1—Microphone input-----	2Z9631. 269.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
T6-----	TRANSFORMER, AF: output; pri 25,000 ohms; sec'd 4000 ohms, tapped 250 ohms; HS metal case; 1.400" lg x 1" diam; Jeffsonelec #467-001-219; Rauland #LA-0045.	T6—Audio output-----	2Z9632. 381.
T5-----	TRANSFORMER, discriminator: 4.3 mc; output; shielded, herm sealed; adj iron cores; tuned pri and sec'd; 5" lg x 1½" diam o/a w/2 mtg holes; Rauland part/dwg LQ-0114; Delco part/dwg #7254065.	T5—Discriminator-----	2Z9643. 189.
T2-----	TRANSFORMER, IF: input; 4.3 mc; shielded; 3" lg x 1½" wd x 1½" d over-all; adj iron cores; Delco #7254025; Rauland #LQ-0116.	T2—First i-f-----	2Z9643. 190.
T3-----	TRANSFORMER, IF: 4.3 mc; interstage; 2d IF; shielded; adj powdered iron cores; approx 3% lg x 1½" wd x 1½" d; Rauland part/dwg LQ-0117; Delco part/dwg #7254026.	T3—Second i-f-----	2Z9643. 191.
T4-----	TRANSFORMER, IF: 4.3 mc; interstage, limiter; shielded; adj powdered iron cores; approx 3% lg x 1½" wd x 1½" d o/a; Rauland part/dwg LQ-0118; Delco part/dwg #7254027.	T4—Third i-f-----	2Z9643. 192.
T7-----	TRANSFORMER, power: vibrator; pri 6 or 12 v input; output 280 v CT, 120 cyc; HS metal case; 3.305" lg x 2½" wd x 3" h less term; Jeffsonelec #465-001-209; Rauland #LP-0186.	T7—Vibrator power-----	2Z9608-56.
V12-----	TUBE, electron: JAN-1A3-----	V12—Discriminator-----	2J1A3.
V6, V7, V8, V10, V11, V14, V17.	TUBE, electron: JAN-1L4-----	V6—First r-f amplifier-----	2J1L4.
		V7—Second r-f amplifier-----	
		V9—First i-f amplifier-----	

V8, V16-----	TUBE, electron: JAN-1R5-----	V10—Second i-f amplifier-----	2J1R5.
V1, V2, V3, V4, V13	TUBE, electron: JAN-3A5-----	V11—Limiter-----	
V5, V15-----	TUBE, electron: JAN-3Q4-----	V14—Crystal oscillator amplifier.	
V18-----	TUBE, electron: JAN-6AF6G-----	V17—D-c amplifier-----	
V19-----	TUBE, electron: JAN-OB/VR90-----	V8—Mixer-----	
R64, R65-----	TUBE, ballast: glass; 4.0 to 4.4 v across load, 1.5 to 3.1 v drop across tube; 0.34 to 0.37 amp T-9 bulb; 3 $\frac{5}{16}$ " lg over-all; Amperite #3H-1-7.	V16—Bias oscillator-----	2J3A5.
V1B-----	VIBRATOR, synchronous: vibrator rectifier; input 6 v, DC, 5 amp; 3 $\frac{1}{4}$ " lg x 1 $\frac{1}{2}$ " diam; Mallory #538C.	V1—R-f power amplifier-----	
	VISOR: bakelite; round; 1 $\frac{1}{2}$ " ID x 1 $\frac{1}{2}$ " OD x 3 $\frac{3}{16}$ " lg; Delco #7253606; Rauland #QP-0272.	V2—R-f power amplifier.	
	WASHER, cup: brass; nickel pl; ID $\frac{1}{16}$ " x $\frac{1}{4}$ " hole diam x $\frac{5}{16}$ " h; Delco #7253421; Rauland #AG-3093.	V3—Doubler.	
	WASHER, flat: black neoprene; round; 0.160" ID x $\frac{1}{16}$ " OD x $\frac{1}{16}$ " thk; Rauland #QR-0217.	V4—Transmitter oscillator.	
	WRENCH: setscrew; 1 $\frac{1}{2}$ " lg x $\frac{1}{16}$ " wd x 0.060" diam over-all; "L" shaped, fluted; Bristolco #4; Rauland #AG-1630.	V13—Discriminator and a-f amplifier.	
		V5—Reactance tube-----	2J3Q4.
		V15—Crystal oscillator.	
		V18—Indicator-----	2J6AF6G.
		V19—Voltage regulator-----	2JOB3/VR90.
		R64—Receiver filament voltage regulator.	3Z6925-3.10.
		R65—Transmitter filament voltage regulator.	
		V1B—Synchronous vibrator-----	3H6699-11.
		For indicator-----	2ZA951-19.
		For cover-----	6L50244BN.
		For cover-----	2Z4866.239.
		Tool-----	6RK55232.

Identification Table of Replaceable Parts for Receiver-Transmitter BC-1335—Continued

Ref symbol	Name of part and description	Function of part	Signal Corps stock No.
R31, S4-----	RESISTOR, variable (potentiometer): carbon; 1 meg $\pm 20\%$ w/switch SPST; $1\frac{1}{16}$ " diam x 0.754" d; shaft $\frac{5}{32}$ " lg x $\frac{1}{4}$ " diam; CTS #45 series, type #W-4142; Rauland #RP-105 Y.	R31—VOLUME control----- S4—On-off switch.	3Z7499-1.15.
	RETAINER, crystal holder: consists of bracket, spring, sleeve, two bushings, and pin; $1\frac{1}{16}$ " lg x $1\frac{1}{16}$ " wd x 2" h over-all; Delco #7253678; Rauland #VG2322.	Holds crystal holder-----	2Z7780-11.
	SEAL, water: steel; engraved "MIC"; $1\frac{1}{16}$ " lg x $1\frac{1}{16}$ " wd x $\frac{7}{8}$ " d; Delco #7253660; Rauland #AG-4015.	Seals MIC jack-----	2Z8273-5.
	SEAL, water: steel body; engraved "PH"; $1\frac{1}{16}$ " lg x $1\frac{1}{16}$ " wd x $\frac{7}{8}$ " d; Delco #7253664; Rauland #AG-4014.	Seals PH jack-----	2Z8273-6.
	SHIELD, tube: aluminum; round, open top; slot mtd; $1\frac{3}{4}$ " lg x 0.941" diam; JAN type SOS-6.	Shields tube-----	2Z8308-28.
X1-----	SOCKET, crystal: 4 prong; molded phenolic; $1\frac{1}{16}$ " lg x $2\frac{3}{32}$ " wd x $1\frac{1}{16}$ " h over-all; Cinch #9804; Rauland #SF-0199.	Socket for crystal holders-----	2Z8678.
	SOCKET, tube: 6 cont; bakelite body; $1\frac{1}{8}$ " diam x $\frac{7}{16}$ " h less term; Amphphenol #MIP-6.	Socket for vibrator-----	2Z8659-7.
	SOCKET, tube: miniature 7 pin; molded phenolic body; $1\frac{3}{32}$ " diam x $1\frac{7}{16}$ " h over-all; JAN type SO-10-M.	Tube socket-----	2Z8677.94.
	SOCKET, tube: miniature 7 pin; ceramic body; $1\frac{3}{32}$ " diam x $1\frac{1}{4}$ " h over-all; JAN type SO-10-C.	Tube socket-----	2Z8677.95.

L31, L74A, B-----	SOCKET, tube: octal; mica filled bakelite; body 1" diam x 1/2" less term; Cinch #6742; Rauland #ST-800X.	Tube socket-----	3Z8678.231.
S3A, B, C-----	SPRING: flat; chart retainer; 0.016" phosphor-bronze; 1 1/16" lg x 3/8" wd x 3/4" h over-all; Delco #7253431.	Holds chart-----	2Z8879-56.
S5A, B, C-----	SPRING: flat; grounding cont; 0.011" spring brass; 1 3/4" lg x 5/8" wd x 3/8" h over-all; Delco #7253814; Rauland #AG-3037.	Maeks ground connection-----	2Z8877.101.
S2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2J.	SPRING: flat; vibrator retainer; 0.025" carbon steel; 1 5/8" OD x 1 1/8" ID x 1 1/2" h; Cinch #52092.	Holds vibrator-----	2Z8879-55.
S1A, B-----	SUPPRESSOR, electrical noise: "A" supply; capacitor and choke coil on 0.050" aluminum bracket; 3 15/32" lg x 1 3/4" wd x 1 3/8" h over-all; 6 amp, 3 v DC; 3 1/2 amp, 14 v DC; Delco #7253767; Rauland #VG-2316.	L31--Battery line noise filter L74A--Battery line noise filter. L74B--Battery line noise filter.	3Z1891-21.3.
	SWITCH, lever: two position, nonlocking; cont arrangement position #1, 1A2B, position #2, 2B1A; bakelite insulation; 1 7/8" lg x 5/8" wd x 2 1/4" h over-all; Centralab #N7806XT.	S3--ALIGN-OPERATE switch.	3Z9580-2.2.
	SWITCH, rotary; 4 SPST, 5 pole, two position; three sect; cont arrangement #1, 2A2B-2A2B-2A and shorting position; position #2, 2B2A-2B1A; bakelite insulation; 4 3/32" lg x 1 15/16" wd x 1 3/4" h over-all; nonlocking; Mallory type #RM.	S5--6V-12V switch-----	3Z9825-55.77.
	SWITCH, slide: 2 position; nonlocking; position #1, 9A9B, position #2, 9B9A; bakelite insulation; 9 27/64" lg x 2 1/8" wd x 1 1/2" h over-all; Oak #5850.	S2--CHANNEL switch-----	3Z9835-4.4.
	SWITCH, toggle: DPST; bakelite body; 3 amp, 250 v; body dimen 1 5/8" lg x 1 1/16" wd x 3 1/2 h; C-H #8370K1; Rauland #X-0239.	S1--ALIGN 5 AND 6--ALIGN OTHERS switch.	3Z9849.12.

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